



REVIEW

of FOREIGN SCIENTIFIC CONSULTANT

On the thesis of Kenjegulov Aidar "*Formation of calcium-phosphate coatings on titanium substrate with high functional properties by the method of high-frequency magnetron sputtering*" submitted for a scientific degree of Doctor of Philosophy (PhD)

on speciality 6D071000 - Materials Science and Technology of New Materials

Dissertational research of A. Kenzhegulov devoted to the study of the formation of calcium-phosphate coatings on titanium substrate with high functional properties by the method of high-frequency magnetron sputtering.

The graduant investigated the effect of the formation regimes on the structure, phase and elemental composition, morphology and adhesion properties of CF coatings. The optimal deposition mode and factors that influence the formation of coatings on the surface of titanium VT1-0 were determined.

The results of theoretical and experimental studies obtained by the graduant provide new, deeper ideas about the process of formation of biocomposite coatings, their structure, composition and properties. The proposed deposition process of coatings can be used to produce a biocompatible coating satisfying medical and technical characteristics.

PhD student personally took part in the formulation and solution of problems, in the performance of all experimental studies, as well as the analysis of the obtained results.

I think that the thesis work of A. Kenzhegulov has a completeness, logical correlation of all chapters, internal unity, scientific novelty, practical significance by the volume, level of performance, reliability, scientific and practical significance of the obtained results. PhD student is quite worthy of awarding the required PhD degree on speciality 6D071000 - Materials Science and Technology of New Materials.

Foreign scientific consultant,

Prof., Doctor of Technical Sciences.

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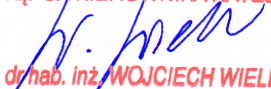
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